L 09952-67 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/JH

ACC NR: AT6026553 SOURCE CODE: UR/2776/66/000/046/0099/0104

AUTHORS: Bolikova, E. I.; Boyarshinov, V. A.; Antipov, V. M.; Pirogova, Z. N.; Okorokov, G. N.; Guley, G. G. 41

ORG: none

TITLE: Structure and properties of alloy EI437B smelted in a vacuum induction furnace

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 46, 1966. Spetsial'nyye stali i splavy (Special steels and alloys), 99-104

TOPIC TAGS: alloy, vacuum arc furnace, vacuum melting / EI437B alloy

ABSTRACT: The effect of aluminum and titanium additions on the properties of the heat-resistant alloy EI437B, smelted in a vacuum induction furnace, was investigated. The study was prompted by the fact that the alloy smelted by the Chelyabinsk and Zlatoust Metallurgical Plants using vacuum induction furnaces was inferior to the alloy smelted in open arc furnaces. The experimental results are presented in graphs and tables (see Fig. 1). It was found that to insure high mechanical qualities of the alloys smelted in vacuum induction furnaces, the aluminum content should be

Card 1/2

L 09952-67

ACC NR: AT6026553

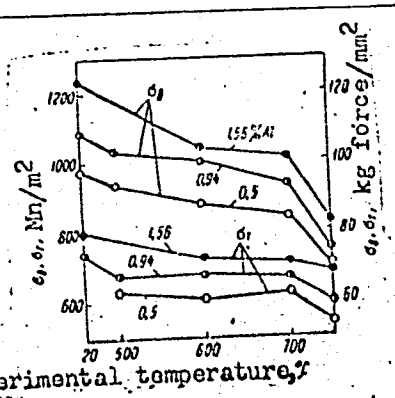



Fig. 1. Mechanical properties of alloy EI437B as a function of the testing temperature. Quenching from 1080C, annealed for 16 hrs, cooled in air, and aged for 16 hrs at 70C, cooled in air.

0.8--1.0% and the titanium content 2.7--3.0% respectively. Orig. art. has: 3 tables and 4 graphs.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 008

L 04678-67 EWT(m)/T/EWP(t)/ETI/EWP(k) IJP(c) JD

ACC NR: AR6020939 SOURCE CODE: UR/0137/66/000/002/V061/V061

AUTHOR: Shcherbakov, A. I.; Nikulin, A. A.; Okorokov, G. N.; Bochkov, D. A.; Boyarshinov, V. A.; Volokhonskiy, L. A.; Polyakov, A. I.

42
41
13

TITLE: The effect of the electric power parameters on a vacuum arc furnace on ingot crystallization conditions

SOURCE: Ref. zh. Metallurg, Abs. 2V396

REF SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 45, 1965, 34-37

TOPIC TAGS: vacuum arc furnace, alternating magnetic field, constant magnetic field

TRANSLATION: An investigation was made of the effect of electric parameters of a vacuum arc furnace on crystallization conditions of an ingot, as well as the possibility of influencing the crystallization process with the use of constant and alternating magnetic fields. An analytic and experimental correlation between these parameters and the crystallization of an ingot was determined. The relative depth $h/D$ of a liquid wall was equivalent for molds of different dimensions by maintaining the equality $I/D$ = constant. The value $I/D$ suitable for a metal with a small 2-phase region extension may serve as the criterion for selection of the electrical melting cycle. For a metal with an extended 2-phase region it is necessary to decrease the ingot diameter and to decrease the operating current as much as possible in order to prevent segrega-

Card 1/2 UDC: 621.365.22-982.001.5

L 44678-67

ACC NR: AR6020939

tion defects. The use of an alternating magnetic field prevents structural defects, characteristic of ingots melted in a constant magnetic field, and is a promising method for arc stabilization during vacuum arc melting. 3 figures. G. Lyubimova.

SUB CODE: 13 ,20

fv

Card 2/2

BOYARSHINOV, V.K.

AUTHORS: Chizhikov, A. I.; and Boyarshinov, V. K.

TITLE: Experiment in the Use of Tritium in the Study of the Behavior of Hydrogen in Metals (Opyt primeneniya tritiya dlya izucheniya povedeniya vodoroda v metallakh)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, No. 1, pp. 11-14 (U.S.S.R.)

ABSTRACT: Gaseous hydrogen, marked by tritium, is obtained through the decomposition of water vapor passed through incandescent zinc. A saturation meter is used to record the B-radiation of the tritium. Water, nitrogen and $CO_2$ are removed from the zinc before the operation of decomposition. This is done through a vacuum created by freezing water with liquid nitrogen. The experiments involved three devices: one to obtain the hydrogen with tritium, one to detect the radiation of the latter and a device for saturating metal with hydrogen. The principle metal used was an alloy of aluminum with 10.4% Mg., 1.6% Si and 0.16% Fe. The metal was degassed at about 625°C and saturated at about 570°C. Other alloys were experimented with and graphs were made showing the results. The temperatures and pressures involved in saturating the various metals are noted and the difference in

Card 1/2

Experiment in the Use of Tritium in the Study of the Behavior of Hydrogen in Metals

behavior of hydrogen and tritium is described, the latter involving the application of mudh more energy. There are 6 references, of which 5 are Slavic.

ASSOCIATION

PRESENTED BY:

SUBMITTED:

AVAILABLE:

Card 2/2

OKOROKOV, G.N., kand.tekhn.nauk; BOYARSHINOV, V.Ya., kand.tekhn.nauk; SHAMIL', Yu.P., inzh.; LEYBENZON, S.A., inzh.; PAKHOMOV, A.I., inzh.; POLYAKOV, A.I., inzh.

Improving the macrostructure of ShKh15 steel made in a vacuum arc furnace. Stal' 23 no.1:30-34 Ja '63. (MIRA 16:2)

1. Dnepropetrovskiy staleplavil'nyy zavod vysokokachestvennykh i spetsial'nykh staley i TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Steel—Electrometallurgy) (Vacuum metallurgy)

SOV/124-57-3-3193

Translation from Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 79 (USSR)

AUTHOR: Boyarshinova, A. A.

TITLE: Some Results of an Investigation of the Thermal Convective Motion in a Vertical Cylinder of Finite Length (Nekotoryye [redacted] issledovaniya teplovogo konvektivnogo dvizheniya v vertikal'nom tsilindre ogranichennoy dliny)

PERIODICAL: Uch. zap. Molotovsk. un-t, 1955, Vol 9, Nr 4, pp 61-70

ABSTRACT: A small column of water in a glass tube was bounded by a hot copper piston from below and a cold one from above. Simultaneously with the movement of the cold piston upward a photographic recording was made of the temperature difference between the pistons. As the height of the column increased, three heat-transfer regimes were observed consecutively for any degree of heating. The paper discusses in detail the results obtained in the investigation.

M. P. Sorokin

Card 1/1

BOYARSHINOVA, E. (Sverdlovsk); VLADIMIRSKIY, B.; MIROSHNIK, L. (Khmel'nitskiy); KAZIMIROV, S.; KELLER, B., pervyy pomoshchnik kapitana [illegible] (Arkhangel'sk); SERGIYENYA, K. (Khar'kov); BORODIKHIN, I., apparatchik (Chernigov); SOLOV'YEV, V., slesar'-sborshchik

Readers relate, advise and criticize. Sov. profsoiuzy 19 no.14: 30-31 Jl '63. (MIRA 16:9)

1. Neshtatnyy instruktor Dnepropetrovskogo oblastnogo komiteta professional'nogo soyuza rabochikh metallurgicheskoy promyshlennosti (for Vladimirskiy). 2. Neshtatnyy instruktor Volgogradskogo promyshlennogo oblastnogo soveta professional'nykh soyuzov (for Kazimirov). 3. Gazoturbokhod "Mazem'les" (for Keller). 4. Neshtatnyy korrespondent zhurnala "Sovetskiye profsoyuzy" (for Sergiyenya). 5. Kalininskiy ekskavatornyy zavod (for Solov'yev).
(Labor and laboring classes)

GITSEVICH, M.A.; BOYARSHINOVA, K.P.; KREMENCHUK, G.A.

Use of the phage increase reaction in the examination of objects in the external environment. Report No.1: Use of the phage increase reaction in water analysis. Zhur.mikrobiol.epid.i immun. 32 no.3: 43-44 Mr '61. (MIRA 14:6)

1. Iz laboratorii Dorozhnoy sanitarno-epidemiologicheskoy stantsii Vostochno-Sibirskoy zheleznoy dorogi, Irkutsk.
(WATER--MICROBIOLOGY) (BACTERIOPHAGE)
(SALMONELLA TYPHOSA)

KREMENCHUK, G.A.; GITSEVICH, M.A.; BOYARSHINOVA, K.P.

Use of the phage titer growth reaction for studying objects in the external environment. Report No.2: Use of the phage titer growth reaction in the analysis of water. Zhur.mikrobiol. epid. i immun. 32 no.7:124 Je '61. (MIRA 15:5)

1. Iz Dorozhnoy sanitarno-epidemiologicheskoy stantsii Vostochno-sibirskoy zheleznoy dorogi, Irkutsk.
(BACTERIOPHAGE) (WATER—MICROBIOLOGY)

BOYARSHINOVA, M.S., kandidat meditsinskikh nauk; SOLOV'YEVA, V.A., kandidat meditsinskikh nauk

17-ketosteroids and their clinical significance in tuberculosis. Sov.probl.tub. 6 no.1:3-8 '55. (MLRA 8:7)
(TUBERCULOSIS, urine in,
17-ketosteroids)
(STEROIDS, in urine,
17-keto, in tuberc.)
(URINE,
17-ketosteroids, in tuberc.)

RADKEVICH, R.A., BOYARSHINOVA, M.S., KOCHUKOVA, N.G.

Some biochemical indication of the reaction of infected children to repeated enteral administration of BCG vaccination. Probl. tub 36 no.6:83-87 '58 (MIRA 11:10)

1. Iz Instituta tuberkuleza AMN SSSR (dir. Z.A. Lebedeva).
(BCG VACCINATION, ther. use
tuberc. in child., oral admin., biochem. determ. of reaction (Rus))
(TUBERCULOSIS, in inf. & child.
reaction to repeated oral admin. of BCG vacc., biochem. determ. (Rus))

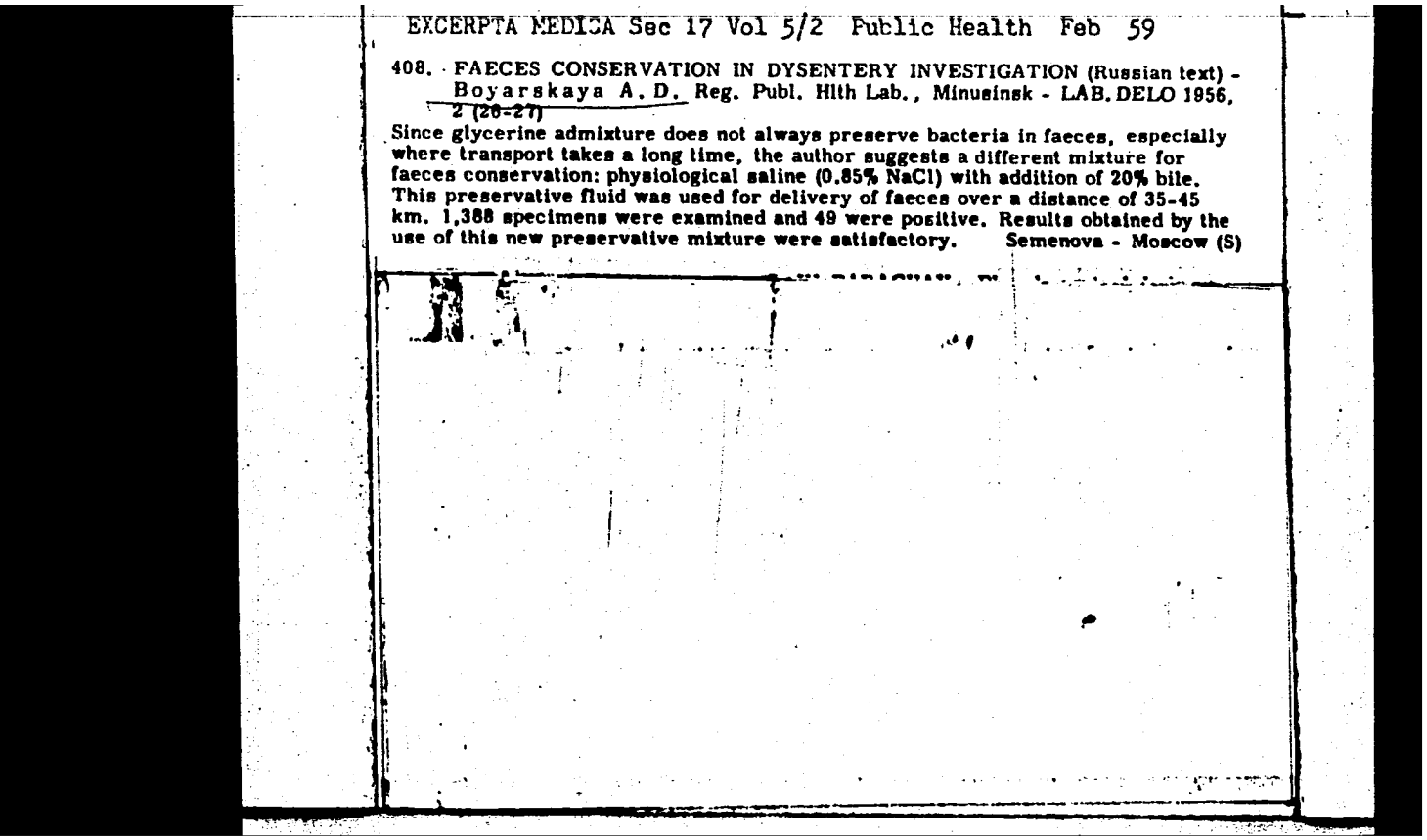
RADKEVICH, R.A.; BOYARSHINOVA, M.S.

Effect of antibacterial therapy of blood catalase in patients with tuberculosis. Probl.tub. 38 no.4:82-87 '60.
(MIRA 14:5)

(TUBERCULOSIS) (CATALASE)

BLIDIN, V.P.; BOYARSKAYA, A.A.

Polytherm of the ternary system urea - lithium sulfate - water.
Zhur.prikl.khim. 34 no.3:695-696 Mr '61. (MIRA 14:5)
(Urea) (Lithium sulfate)



EXCERPTA MEDICA Sec 17 Vol 5/2 Public Health Feb 59

408. FAECES CONSERVATION IN DYSENTERY INVESTIGATION (Russian text) - Boyarskaya A. D. Reg. Publ. Hlth Lab., Minusinsk - LAB. DELO 1956, 2 (26-27)

Since glycerine admixture does not always preserve bacteria in faeces, especially where transport takes a long time, the author suggests a different mixture for faeces conservation: physiological saline (0.85% NaCl) with addition of 20% bile. This preservative fluid was used for delivery of faeces over a distance of 35-45 km. 1,388 specimens were examined and 49 were positive. Results obtained by the use of this new preservative mixture were satisfactory. Semenova - Moscow (S)

S/272/63/000/002/003/009
E194/E155

AUTHORS: Savkun, L.Z., and Boyarskaya, A.S.

TITLE: An automatic analyzer for determining combustibles in inert gas

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk, Metrologiya i izmeritel'naya tekhnika, no.2, 1963, 48, abstract 2.32.338. (Novosti neft. i gaz. tekhn. Neftepererabotka i neftekhimiya, no.6, 1962, 47-48)

TEXT: The instrument is intended for signalling the presence of high-pressure nitrogen. The measuring equipment consists of a supply unit, a pick-up panel with electrolyzer, and a second instrument. The analyzer determines the thermal effect of the catalytic reaction of combustion of the component analyzed on a platinum wire in an unbalanced bridge circuit. The instrument uses 220 V a.c. and 50 c/s through a power transformer. The pick-up panel consists of a unit containing two active arms with platinum coils (working and comparator), changeover tap, a flow meter for controlling the rate of passage of gas, a cotton-wool

Card 1/2

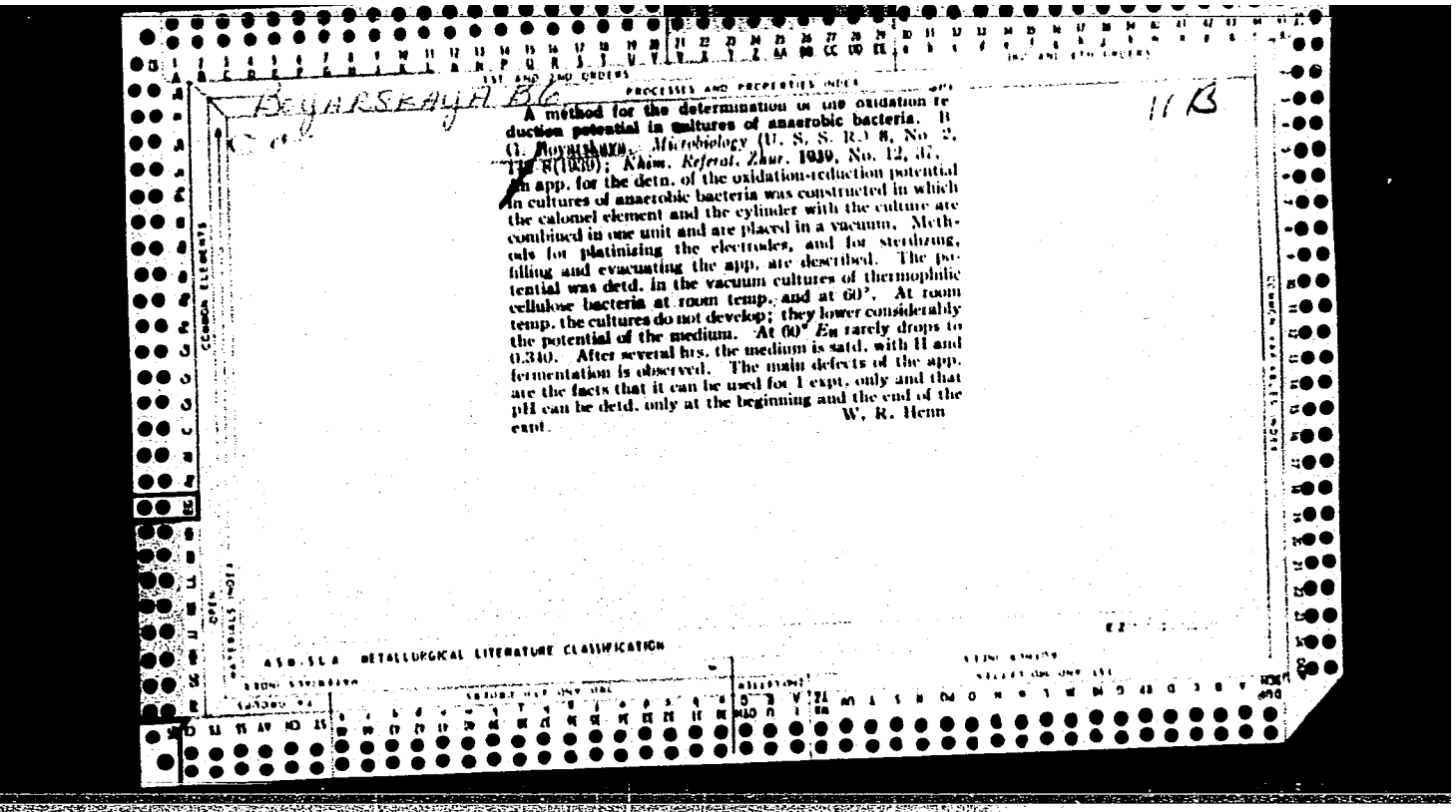
filter, and a stop-valve. The scale of the instrument is 0 - 1% combustibles; the main error is ± 5%.

[Abstractor's note: Complete translation.]

Card 2/2

BOYARSKAYA, A.S.

Operation and repair of optical-acoustic gas analyzers. Neftepor. i neftekhim. no.12:43-44 '64. (MIRA 18:2)



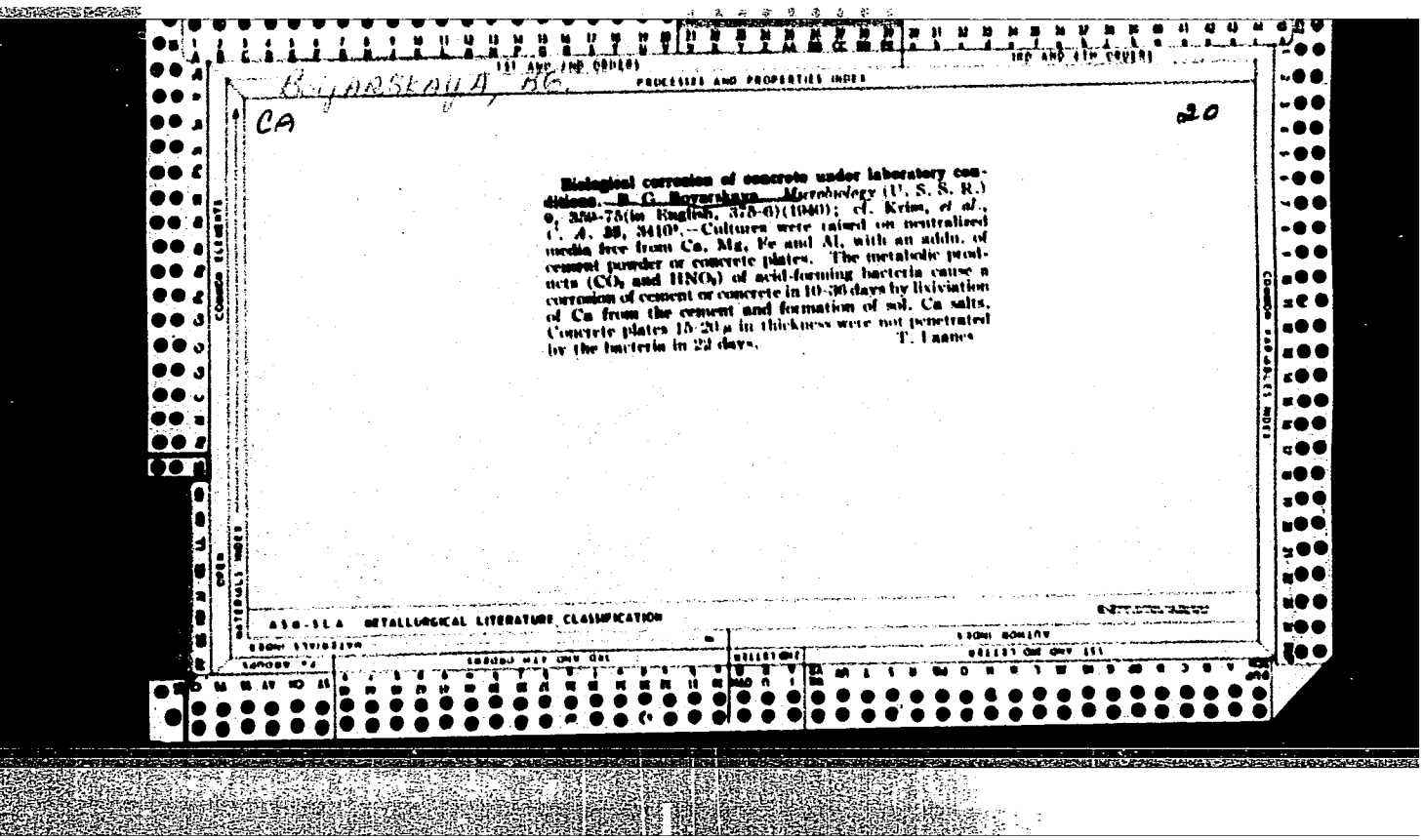
BOYARSKAYA, B.G.

11 B

A method for the determination of the oxidation reduction potential in cultures of anaerobic bacteria. B. G. Boyarskaya. *Microbiology* (U. S. S. R.) 8, No. 2, 178-84(1939); *Khim. Referat. Zhur.* 1939, No. 12, 47. An app. for the detn. of the oxidation-reduction potential in cultures of anaerobic bacteria was constructed in which the calomel element and the cylinder with the culture are combined in one unit and are placed in a vacuum. Methods for platinizing the electrodes, and for sterilizing, filling and evacuating the app. are described. The potential was detd. in the vacuum cultures of thermophilic cellulose bacteria at room temp. and at 60°. At room temp. the cultures do not develop; they lower considerably the potential of the medium. At 60° $E_H$ rarely drops to 0.340. After several hrs. the medium is satd. with H and fermentation is observed. The main defects of the app. are the facts that it can be used for 1 expt. only and that pH can be detd. only at the beginning and the end of the expt.

W. R. Henn

A50-51A METALLURGICAL LITERATURE CLASSIFICATION



Biological corrosion of concrete under laboratory conditions. B. G. Boyarskaya. *Microbiology* (U. S. S. R.) 9, 358-75(in English, 375-6)(1940); cf. Krim, *et al.*, C. A. 30, 3410⁹.—Cultures were raised on neutralized media free from Ca, Mg, Fe and Al, with an addn. of cement powder or concrete plates. The metabolic products ($CO_2$ and $HNO_3$) of acid-forming bacteria cause a corrosion of cement or concrete in 10-30 days by lixiviation of Ca from the cement and formation of sol. Ca salts. Concrete plates 15-20 μ in thickness were not penetrated by the bacteria in 23 days. T. I. James

BOYARSKAYA, G.F.

UTKINOV, Andrey Yakovlevich; SHEVTSOV, M.S., prof., red.; BOYARSKAYA, G.F., red.; LOMILINA, L.N., tekhn.red.

[The Communist Party as the organizer of the collective farm movement; a cours of lectures on the history of the Communist Party of the Soviet Union] Kommunisticheskaia partiia - organizator massovog kolkhoznogo dvizheniia; iz kursa lektsii po istorii KPSS. [Moskva] Izd-vo Mosk.univ., 1957. 34 p. (MIRA 10:12)

(Collective farms)

SHTEYNGAUZ, G. [Steinhaus, Hugo]; BOYARSKAYA, G.F. [translator]; BOYARSKIY, B.V. [translator]; RYVKIN, A.Z., red.; AKHLAMOV, S.N., tekhn.red.

[One hundred problems] Sto zadach. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 156 p. Translated from the Polish. (MIRA 13:10)

(Mathematics--Problems, exercises, etc.)

YELEN'SKIY, Shchepan [Jelenski, Shchepan]; BOYARSKAYA, G.F. [translator]; BOYARSKIY, B.V. [translator]; YAKUSHEV, A.A. [translator]; SHIROKOV, F.V., nauchnyy red.; MIKOYAN, E.P., otv. red.; MARKOVICH, S.G., tekhn. red.

[Following the tracks of Pythagoras; entertaining mathematics] Po sledam Pifagora; zanimatel'naia matematika. Moskva, Gos. izd-vo detskoi lit-ry M-va prosv. RSFSR, 1961. 485 p. Translated from the Polish. (MIRA 14:9)

(Mathematics—Juvenile literature)

SKIRSTYMONSKIY, A.I.; KRAVETS, Yu.M.; KOTENKO, S.I.; ERLIKH, M.Ya.; NIKIFOROV, L.Ye.; BOYARSKAYA, G.V.

Experiment in industrial production of the fodder concentrate of vitamin B 12. Ferm.i spirt.prom. 31 no.1:29-31 '65. (MIRA 18:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut spirtovoy i likero-vodochnoy promyshlennosti (for Skirstymonskiy, Kravets, Kotenko). 2. Ivan'kovskiy spirtozavod (for Erlikh, Nikiforov, Boyarskaya).

BOYARSKAYA, L.G.

Biomorphology of the respiratory system in turtles. Trudy Inst. fiziol. AN Kazakh. SSR. 4:175-178 '63.

(MIRA 17:10)

KUCHERPATOVA, Ye.G.; ROMANOV, I.I.; TARASOV, Ye.F.; SHESTOV, A.I.; MAKAROV, N.A., otvetstvennyy redaktor; BOYARSKAYA, L., redaktor; PAVLOVA, M., tekhnicheskiy redaktor

[The "Urals" pavilion (Sverdlovsk and Molotov Provinces, Udmurt A.S.S.R., Chelyabinsk and Kurgan provinces); a guidebook] Pavil'on "Ural" (Sverdlovskaia i Molotovskaia oblasti, Udmurtskaia ASSR, Cheliabinskaia i Kurganskaia oblasti); putevoditel'. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 27 p. (MIRA 9:8)

1. Moscow. Vsesoyuznaia sel'skokhozyaystvennaya vystavka, 1954-
(Ural Mountain region--Agriculture)
(Moscow--Agricultural exhibitions)

YEFIMOV, A.L.; BOYARSKAYA, L.S., redaktor; PERESYPKINA, Z.D., tekhnicheskiy redaktor

[Agriculture in England] O sel'skom khoziaistve Anglii. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1956. 182 p. (MLRA 10:3)
(Great Britain--Agriculture)

BOYARSKAYA, L. S.

LEBEDEV, Ivan Kononovich; BOYARSKAYA, L.S., red.; BALLOD, A.I., tekhn.red.

[On Swedish fields and farms] Na poliakh i fermakh Shvetsii. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 238 p. (MIRA 11:1)
(Sweden--Agricuture)

BOYARSKAYA, L.S.

BARANOV, P.A., akademik; KARPINSKIY, N.P., doktor sel'skokhozyaystvennykh nauk; BOYARSKAYA, L.S., redaktor; PERESYPKINA, Z.D., tekhnicheskiy redaktor; ZURILINA, Z.P. tekhnicheskiy redaktor.

[Use of fertilizers in the German Democratic Republic] Primenenie udobreniy v GDR. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 157 p. (MIRA 10:6)
(Germany, East--Fertilizers and manures)

BERLYAND, Sigizmund Solomonovich; BOYARSKAYA, L.S., red.; GUREVICH, M.M., tekhn. red.

[Plant hybridization] Gibridizatsiia rastenii. Moskva, Gos. izd-vo sel'khoz.lit-ry, 1957. 317 p. (MIRA 15:2)
(Hybridization, Vegetable)

BOYARSKAYA, L.S.

BUSSENGO, Zhan Batist [Boussingault, Jean Baptiste]; TIMIRYAZEV, K.A.; PRYANISHNIKOV, D.N.; LEBEDYANTSEV, A.N., prof.; PETERBURGSKIY, A.V., prof.; BOYARSKAYA, L.S., red.; GOR'KOVA, Z.D., tekhn.red.

[Selected works on plant physiology and agricultural chemistry] Izbrannye proizvedeniia po fiziologii rastenii i agrokhimii. Vvodnye stat'i K.A. Timiriazeva i dr. Izd.2. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1957. 544 p. [Translated from the French.] (MIRA 12:1)

(Agricultural chemistry) (Botany--Physiology)

BELOZOROV, Sergey Tikhonovich; BOYARSKAYA, L.S., red.; GUREVICH, M.M., tekhn.red.

[Gavriil Ivanovich Tanfil'ev; an account of his life and works] Gavriil Ivanovich Tanfil'ev; ocherk zhizni i tvorcheskoi deiatel'nosti. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1958. 85 p. (MIRA 12:4)
(Tanfiliev, Gavriil Ivanovich, 1857-1928)

SAVICH, Igor Aleksandrovich, PANDEYEV, Boris Vasil'yevich,; BOYARSKAYA, L.S., red.; GOR'KOVA, Z.D., tekhn. red.

[Breeding swine and dairy cattle in the German Democratic Republic] Svinovodstvo i molochnoe zhivotnovodstvo v GDR. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 199 p. (MIRA 11:10)
(Germany, East--Swine)
(Germany, East--Dairy cattle)

SUN' YUN'-VEY [Sun Yün-wei]; SONYUSHKIN, F.M., [translator]; METLITSKIY, Z.A., prof., doktor sel'skokhoz.nauk, nauchnyy red.; BOYARSKAYA, L.S., red.; KALININ, N.I., tekhn.red.

[Fruit culture in Northwestern China] Sadovodstvo Severo-Zapadnogo Kitaia. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 133 p. (MIRA 13:9)

(China, Northwest--Fruit culture)

KLINGEN, Ivan Nikolayevich; DUNIN, M.S., prof., doktor sel'skokhoz.nauk, red.; BOYARSKAYA, L.S., red.; ZUBRILINA, Z.P., tekhn.red.

[Among the patriarchs of agriculture of the Near and the Far Eastern people; Egypt, India, Ceylon, China] Sredi patriarkhov zemledeliia narodov Blizhnego i Dal'nego Vostoka; Egipet, Indiia, TSeilon, Kitai. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 603 p. (MIRA 13:11)

(Far East--Agriculture) (Near East--Agriculture)

BOYARSKAYA, M.A., vet.vrach.

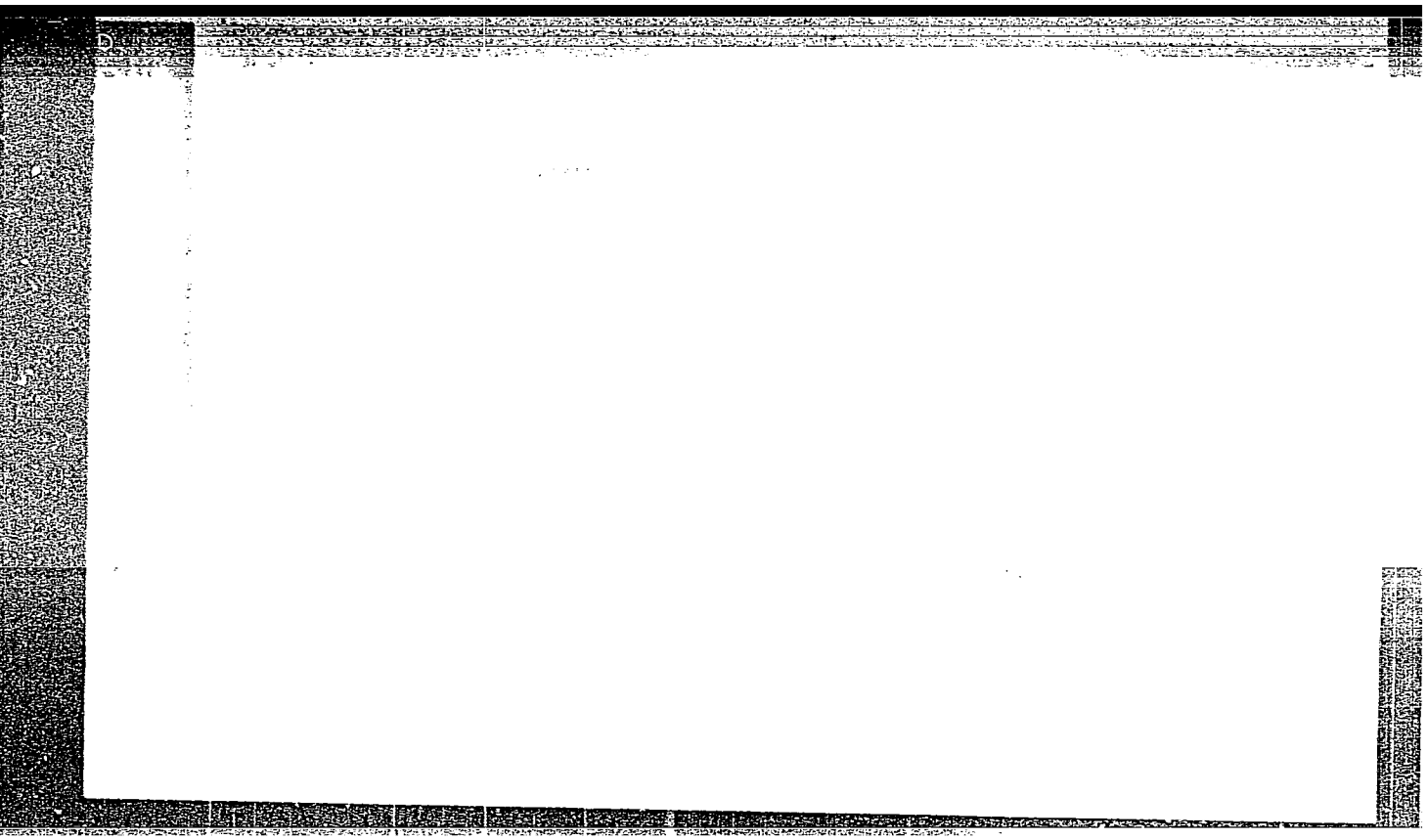
Therapy in tympanites and atony of the rumen. Veterinariia 35 no.12:57 D '58. (MIRA 11:12)

1. Moskovskaya veterinarnaya akademiya.
(Rumen--Diseases)

SHEYER, A.A.; RUTKOVSKAYA, R.A.; BOYARSKAYA, M.M.; YAKOVLEVA, G.S.

Cosmetic creams for the protection of facial skin from ultraviolet rays. Masl.-zhir.prom. 26 no.5:36-39 My '60. (MIRA 13:12)

1. Moskovskaya fabrika "Svoboda."
(Cosmetics)



APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000206620020-3"

d Structure of agar-agar jelly. V. I. Sharkov and R. K. Tuyarskaya. *Proc. Acad. Sci. U.S.S.R., Sect. Chem.* 108, 223–6(1956) (English translation). —See *C.A.* 51, 8066d

L 7885-66 EWT(m)/ETC/EWG(m) DS/RM

ACC NR: AP5025040 SOURCE CODE: UR/0286/65/000/016/0085/0085

AUTHORS: Eliashberg, M. G.; Tsypkina, M. N.; Makhnovetskaya, G. I.; Boyarskaya, R. K.; Sergeyeva, V. V.

ORG: none

TITLE: Method for obtaining cation exchange resin from waste solutions of the sulfite cellulose industry. Class 39, No. 173952

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 85

TOPIC TAGS: cation exchange, resin, sulfite waste liquor, cellulose

ABSTRACT: This Author Certificate presents a method for obtaining cation exchange resin from waste liquor of the sulfite cellulose industry (alcoholic sulfite, malt, and yeast brew). To reduce the cost of manufacture, the waste malt solutions are freed from the base by cationation and concentrated by evaporation at a temperature of 90-100C until the dry materials content reaches 50%. The mixture is heated to dryness and condensed at the same temperature until the resin gains the desired degree of swelling.

SUB CODE: 07, 11/ SUBM DATE: 01Mar61

Card 1/1 UDC: 541.183.123.2:678.557

CHEN, N.G.; KOPTEV, G.P.; BEREZNITSKIY, S.G.; SORKIN, M.M.; BOYARSKAYA, R.R.

Preventing corrosion and scale formation in primary gas coolers. Koks i khim. no.9:49-53 '62. (MIRA 16:10)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz (for Chen).
2. Bagleyskiy koksokhimicheskiy zavod (for Koptev, Bereznitskiy, Sorkin, Boyarskaya).

(Cooling towers)
(Corrosion and anticorrosives)

PREOBRAZHENSKAYA, T.P.; KUDRINA, Ye.S.; MAKSIMOVA, T.S.; SVESHNIKOVA, M.A.; BOYARSKAYA, R.V.

Electron-microscopic study of spores in various actinomycete species. Mikrobiologiia 29 no.1:51-55 Ja-F '60. (MIRA 13:5)

1. Institut po izyskaniyu novykh antibiotikov AMN SSSR.
(ACTINOMYCES)
(MICROSCOPY ELECTRON)

IVANOV, K.K.; GAVRILINA, G.V.; KOVALENKOVA, V.K.; LIROVA, S.A.; SOKOLOVA, L.B.; Prinimali uchastiye: BOYARSKAYA, R.V., inzh.; PROKHOROVA, T.I., inzh.; SHATILOVA, Z.K., inzh.

Aeration and respiration of actinomycetes and proactinomycetes synthesizing antibiotics in fermentors in relation to biochemical changes in the culture media. Antibiotiki 6 no.11:984-989 N '61. (MIRA 15:3)

1. Institut po izyskaniyu novykh antibiotikov AMN SSSR.
(ACTINOMYCES) (ANTIBIOTICS)

BOYARSKAYA, T.D. (Moskva)

Dynamics of forests, tundras, and steppes; vegetation during the Pleistocene. Priroda 54 no.2:36-41 F '65.

(MIRA 18:10)

BOYARSKAYA, T.D.

Development of vegetation in the lower Aldan Valley during the Upper Tertiary and the Quaternary periods. Vest. Mosk. un. Ser. 5: Geog. 19 no.2:90-91 Mr-Ap '64. (MIRA 17:4)

BOYARSKAYA, V.P.

Modification of a valve developed by the Central Institute of Traumatology and Orthopedia for suction fastening of prosthesis of the femur. Ortop.travm. i protez. 17 no.6:127 N-D '56. (MLRA 10:2)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (direktor - chlen-korrespondent AMN SSSR professor N.N.Priorov)
(PROSTHESIS) (ORTHOPEDIC APPARATUS)

BOYARSKAYA, V. P., Cand of Med Sci -- (diss) "Vacuum Strenghtening of Prostheses of the Hip," Moscow, 1959, 15 pp (Central Institute for the Improvement of Doctors) (KL 4-60, 123)

BOYARSKAYA, V.P., kand. med. nauk

Studies on tissue blood flow in the thigh stump in patients using prostheses with vaccum fixation devices. Ortop., travm. i protez. no.8:46-50 '62. (MIRA 17:10)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (dir.-doktor med. nauk M.V. Volkov).

GORBUNOVA, R.L., kand. med. nauk (Moskva A-30, Sushchevskaya ul. d.18, kv.2); BOYARSKAYA, V.P., kand. med. nauk; YURISOVA, L.M., kand. med. nauk

Condition of the feet and shoe supply of school children of the primary and intermediate classes. Ortop. travm. i protez. 24 no.5:42-46 My '63. (MIRA 17:9)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (dir.-prof. M.V. Volkov).

BOYARSKAYA, Yu. S.

"Investigation into the Microhardness of Crystals by Method of Notching." Cand Phys-Math Sci, Inst of Crystallography, Acad Sci USSR, Moscow, 1954. (KL No 3, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

BOYARSKAYA, YU. S.

Problems of Thermodynamics of Ferromagnetic Transformation

Transition of a ferromagnetic state into a paramagnetic one is considered not as phase transformation of second kind, but as a dispersion system of two phases, subjected to rules governing transformation of first kind, but occurring at a wider temperature range. The ideal case of a single axis crystal is analyzed and relations supposed to be satisfied by chemical potential and pressures of ferro- and paramagnetic phases are derived. (RZhFiz, No. 8, 1955) Uch. Zap. Kishinevsk. un-ta, 11, 1954, 105-113.

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

Distr: 4E4j

Investigation of microhardness anisotropy of sodium chloride and potassium chloride crystals by the scratching method. Yu. S. Boyarskaya. *Uchenye Zapiski Kishinev. Univ.*, 17, 159–69(1955); *Referat. Zhur., Khim.* 1956, Abstr. No. 24990.—Investigation of microhardness by the scratching method, the PMT-2 app with a 4-faced diamond pyramid and loads 2–10 g. at a speed 0.0032–0.2 cm./sec. being used, shows "plastic scratches" (destruction of the material preceded by plastic deformation) formed on the surfaces of NaCl and KCl crystals. A 4-leafed rosette of the microhardness is obtained on face (100) with max. along [110] and min. along [100]. The same rosette is formed on face (110) with min. along [100] and [110], and max. at 30° to 45° to [110]. A 3-leafed rosette is formed on face (111), and polar anisotropy is manifested when the crystal is scratched from the center toward the edges, the max. of the 3-leafed rosette are directed toward the angles of the triangular face (111), i.e. toward the common intersection point of the [112] direction and the direction of sliding; when scratched from the end of the crystal toward its center, the max. of the rosette are, on the contrary, directed toward the middle of the sides of the triangular face (111). When testing with a steel cone and a load of 2 g. with a speed 0.08 cm./sec., "brittle scratches" are formed indicating a different mechanism. A 4-leafed rosette is obtained on face (100) with a max. along [100] and min. along [110].

N. Vasiliev

70-5-30/31

AUTHOR: Boyarskaya, Yu.S.

TITLE: Investigation of the Anisotropy of the Hardness of Single Crystals of PbS by the Method of Scratching (Issledovaniye anizotropii tverdosti monokristallov PbS metodom tsarapaniya)

PERIODICAL: Kristallografiya, 1957, Vol.2, No.5, pp. 709-712 (USSR)

ABSTRACT: Earlier work showing that the anisotropy of the hardness of NaCl and KCl crystals was connected with the distribution of slip planes and directions has been confirmed for PbS where there are two slip planes : (100) with slip direction [110] and (110) with slip direction [110].
A diamond point from a ПМТ-3 hardness tester with a load of 5 g was scratched across the surfaces concerned at about 0.01 cm/sec. (100 , (110) and (111) faces were examined. The widths d of the resulting scratches were measured and the hardnesses H calculated from $H = P/d^2$ where P is the load. Hardness figures for each of the above faces were plotted out. That for a polished cube face is slightly different from that for a natural cube face in that slight minima in the [110] direction are removed. The maximum hardness is found in the [100] direction and a minimum in the [11$\bar{2}$] direction. The figures obtained for the 111 faces are non-centrosymmetrical

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70-5-30/31

Investigation of the Anisotropy of the Hardness of Single Crystals of PbS by the Method of Scratching.

and maximum and minimum hardnesses are obtained for scratches in different senses along the same line.
Acknowledgments to M.V. Klassen-Neklyudova and A.A.Urusovskaya and to G.P. Barsanov.
There are 4 figures and 3 Slavic references.

ASSOCIATION: Kishinev State University (Kishinevskiy Gosudarstvennyy Universitet)

SUBMITTED: November 1, 1956.

AVAILABLE: Library of Congress.

Card 2/2

SOV/70-4-4-22/34

AUTHORS: Boyarskaya, Yu.S., Keloglu, Yu.P., Bologa, M.K. and Medenets, V.V.

TITLE: A Study of the Dependence of Microhardness on Loading in Single Crystals of NaCl

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 4, pp 597-602 + 1 plate (USSR)

ABSTRACT: The microhardness of natural NaCl crystal, freshly cleaved and artificially coloured, was measured with a PMT-3 microhardness tester as a function of load. Loads up to 100 g were used. Up to 12 g the hardness increased steadily from 20 to 24 kg/mm$^2$ but by 25 g the hardness has returned to about 21 kg/mm$^2$. Crystals uncoloured, those coloured in various ways and those decolourised behave in substantially the same way. The reaction pressure of the imprint mark for an elastic crystal is treated theoretically and experimentally. The elastic reaction of impressions is shown to be a small effect and shows no influence on the measurement of the microhardness. This reaction also has no

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A Study of the Dependence of Microhardness on Loading in Single Crystals of NaCl

influence on the anisotropy of the formation of the imprints on the (100) faces of NaCl. Near the edges of the imprints bulging and denting of the material is found, which does have a substantial influence on the measurement of the microhardness. There are 7 figures, 1 table and 13 references, of which 11 are Soviet and 2 German.

ASSOCIATION: Kishinevskiy universitet (Kishinev University)

SUBMITTED: June 21, 1958

24.7400

78105
SOV/70-5-1-14/30

AUTHORS: Boyarskaya, Yu. S., Keloglu, Yu. P., Bologa, M. K., Dunayeva, [redacted]

TITLE: Study of the Effects of Some Factors on the Hardness of KCl and NaCl Single Crystals

PERIODICAL: Kristallografiya, 1960, Vol 5, Nr 1, pp 98-104 (USSR)

ABSTRACT: Numerous experiments by various authors are cited. Some of them produced contradictory results and made further studies necessary. The (100) faces of two sets of KCl crystals were etched for different periods with water and tested for the indentation and scratching hardnesses. Both values at first increased with duration of etching for 2-3 min but dropped again to usual values on still further etching. Polishing of (100) faces in saturated KCl solution on a cloth also increased the hardness with time duration for the first 2 min and reduced again on still further duration. However, no hardness increase was evident when specimens were polished with iron oxide instead of KCl

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solution. Thus, impregnation of the surface layer with water is believed to be the principal reason for the hardness increase. The reason for its drop with further treatment may be related to the healing of dislocations because of the intermediary action of the impregnating water. The healing as such increases and stabilizes the surface hardness but at the same time eliminates the internal stresses around former dislocations and, consequently, the additional hardness caused by these stresses. To check this concept the authors tested NaCl crystals which a priori had different degrees of structure distortions and obviously required different periods for the healing of their defects. The structure distortions, produced by a repeated alternation of coloring and bleaching procedures, proved to alter the surface hardness of crystals to such a small extent that the hardness changes during the experiments remained within the limits of possible errors. However, longer periods of

 etching to achieve the maximum surface hardness of more

intensively distorted crystals were obvious. M. V. Klassen-Neklyudova and V. L. Indenbom are acknowledged for advice. There are 6 figures; 4 tables; and 10 references, 8 Soviet, 1 German, and 1 Russian translation of a U.K. paper (by A. H. Cottrell).

ASSOCIATION: Kishinev State University (Kishinevskiy gosudarstvennyy universitet)

SUBMITTED: July 16, 1959

69878

S/032/60/026/04/25/046
B010/B006

24.7500

AUTHORS: Boyarskaya, Yu.S., Keloglu, Yu.P., Lapsker, Yu.O.

TITLE: The Influence of Elastic Indentation Recovery on the Dependence of the Microhardness on the Load

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 4, pp. 477-480

TEXT: Most investigators assume that the elastic recovery of indentations is independent of their dimensions. B.W. Mott (Ref. 1), however, assumes the contrary. The magnitude of elastic recovery, however, must be determined. If it is small in comparison to the dimensions of the indentation, the influence of elastic recovery on the microhardness may be neglected. In this connection, the authors of the present paper carried out investigations using KCl- and aluminum single crystals. Since the moduls of elasticity of both substances are similar, the elastic recovery may be expected to be of similar magnitude. The microhardness was measured by the PMT-3 apparatus. The results are represented graphically (Fig. 1). Elastic recovery was measured by the same apparatus and by means of a metallographic microscope. It was found that the

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The Influence of Elastic Indentation Recovery on the Dependence of the Microhardness on the Load

S/032/60/026/04/25/046
B010/B006

elastic recovery of the indentations is so slight (0.5$\mu$) that it lies within the limit of measuring error. The above-mentioned assumption by B.W. Mott is proved to be correct, i.e. that the elastic recovery has no influence on the dependence of the microhardness on the load. It is shown in a table that elastic recovery at P = 100 $g/mm^2$ only amounts to several microns, and to some ten microns at P = 500 $g/mm^2$. It is found that the anisotropy of the shape of indentations is due not to the anisotropy of the elastic-, but of the plastic properties of the crystal. This is in agreement with the statements of V.K. Grigorovich (Ref. 5). There are 3 figures, 1 table, and 5 references, 3 of which are Soviet.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

Card 2/2

BOYARSKAYA, Yu.S.; VAL'KOVSKAYA, M.I.; TSUKERBLAT, B.S.

Effect of elastic spring-back on the shape of indents made in microhardness measurements. Uch. zap. Kish. un. 49:32-38 '61. (MIRA 15:7)

(Strength of materials--Measurement) (Elasticity)

L 18464-63 EWP(q)/EWT(m)/BDS AFFTC JD

ACCESSION NR: AR3006449 3/0124/63/000/003/V036/V036

SOURCE: RZh. Mekhanika, Abs. 8V272

55

AUTHOR: Boyarskaya, Yu. S.

TITLE: Anisotropy of mechanical properties of alkali halide crystals by the microhardness method 27

CITED SOURCE: Sb. Fiz. shchelochnogaloidn. kristallov. Riga, 1962, 489-491. Diskus., 491-492

TOPIC TAGS: crystal, alkali halide, alkali halide crystal, mechanical property, microhardness, elastic restoration, indenter, dislocation

TRANSLATION: The form of the prints of a microhardness indenter device at the boundary of monocrystals of types (100), (110), and (111) were studied. Upon scratching by a diamond pyramid, "plastic" scratches were obtained and upon scratching with a steel cone, "hard" ones were obtained. With LiF monocrystals the distribution of dislocations around the scratches was studied, with respect to the directions [100] and [110]. The dislocations around the scratches were arranged in layers parallel to the scratch. It was found that the dislocation zones of the

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L 18464-63

ACCESSION NR: AR3006449

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scratches lying along [$\bar{1}$10] were compressed to a greater degree than the scratches lying along [100]. The printings made upon indentation by the diamond pyramids had different form depending on the orientation of the pyramid with respect to the crystallographic directions in the sample. The form of the printing did not change after the lifting of the diamond, i.e., the form of the printing of the crystals was caused not by the elastic restoration but by plastic deformation. The work is further discussed. L. I. Mirkin

DATE ACQ: 28Aug63 SUB CODE: PH, MA ENCL: 00

Card 2/2

ACCESSION NR: AR3010532 S/0058/63/000/009/E053/E053

SOURCE: RZh. Fizika, Abs. 9E422

AUTHOR: Boyarskaya, Yu. S.

TITLE: Study of anisotropy of the mechanical properties of alkali-halide crystals by the microhardness method

CITED SOURCE: Sb. Fiz. shchelochno-galoidn. kristallov. Riga, 1962, 489-491. Diskus., 491-492

TOPIC TAGS: alkali-halide properties, mechanical properties, anisotropy, microhardness, dislocation zone width, elastic recovery, plastic deformation

TRANSLATION: It is shown by selective etching that the width of the dislocation zone near scratches made by a diamond pyramid on the (100) face of LiF depends on the direction of the scratch. Prints

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ACCESSION NR: AR3010532

obtained when a diamond pyramid is pressed in the (100) face of NaCl, KCl, KBr, and LiF have different shapes, depending on the orientation of the pyramid. Theoretical calculations and experimental data show that the shape of the print is determined not by the elastic recovery but by the plastic deformation. M. Shaskol'skaya

DATE ACQ: 14Oct63 SUB CODE: PH ENCL: 00

Card 2/2

BOYARSKAYA, Yu.S.; VAL'KOVSKAYA, M.I.

Hardness rosettes and shape of dents on cubic crystals. Kristallografiia 7 no.2:261-265 Mr-Ap '62. (MIRA 15:4)

1. Kishinevskiy gosudarstvennyy universitet.
(Crystallography) (Hardness)

BOYARSKAYA, Yu.S.; VAL'KOVSKAYA, M.I.

Relation between the elastic recovery of indentations and the microhardness of a substance. Izv. AN Mold. SSR no.5:78-82 '62. (MIRA 18:3)

S/032/62/028/012/014/023
B126/B186

AUTHORS: Boyarskaya, Yu. S., Val'kovskaya, M. I., and Savel'yev, N. T.

TITLE: Direct method of measuring the elastic recovery of imprints on transparent materials in microhardness tests

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 12, 1962, 1494 - 1495

TEXT: For this purpose the authors developed and constructed a device for applying test loads to the diamond indenter mounted on the support of a metallographic microscope, type МИМ-7 (MIM-7). The device consists of a diamond pyramid which, under a specific load, can be indented into a sample of transparent material placed on the microscope stage. The pyramid can be adjusted vertically and focused in the center of the field of view. The elastic recovery is ascertained by measuring the imprint first under the test load, i.e. when the pyramid has been lowered correspondingly, and then when the same has been lifted. In specific measurements carried out on glass specimens, the following test values were measured or calculated: $b_o$, the dimension of the unrecovered imprint side; b, the dimension of the recovered imprint side; $\Delta b_o = b_o - b$, the elastic recovery of the imprint

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side. To reduce errors in measurement it is recommended that the imprint measurements should be numerous. The number of imprints n that have the same $b_0$ depends on $\Delta b_0$. If the dependence of n on $\Delta b_0$ is plotted, the peak value of n can be read off the curve and corresponds to the most probable value of elastic recovery. For example, an elastic recovery of 3.8μ was obtained for a specimen with $b_0$ = 17.3μ. For glass specimens with $b_0 \sim 11 - 17\mu$, $\Delta b_0$ values of 1.9 ± 0.3 to 3.0 ± 0.4μ were obtained. In addition, the device can be used for measuring the microhardness of transparent materials, as the lowering of the pyramid to the surface of the sample is easy to observe and exact setting in vertical direction is possible. Thus it is possible to measure very small imprints with no extra load applied. There are 2 figures and 1 table.

ASSOCIATION: Institut fiziki i matematiki Akademii nauk Moldavskoy SSR (Institute of Physics and Mathematics of the Academy of Sciences Moldavskaya SSR)

S/181/63/005/002/021/051
B104/B102

AUTHORS: Boyarskaya, Yu. S., and Val'kovskaya, M. I.

TITLE: Distribution of the dislocations in the neighborhood of notches in NaCl and LiF single crystals

PERIODICAL: Fizika tverdogo tela, v. 5, no. 2, 1963, 518-523

TEXT: A study was made of the dislocation distributions in the neighborhood of notches that had been applied to the (001) planes of NaCl and LiF single crystals in the [100] and [110] directions by means of a diamond pyramid. For this purpose selective etching was employed. The NaCl crystals were etched with solutions of $CdCl_2$ in ethyl alcohol, the LiF crystals with solutions of $FeCl_3$ in ethyl alcohol. Results:

Dislocation regions are formed on the (001) planes of both single crystals as a result of the application of the notches. Although the width of the notches that were obtained by applying a certain load to the diamond becomes wider when they had the [100] direction than when they had the [110] direction, the width of the dislocation regions in the former was

Distribution of the dislocations ...

narrower than that of the latter. "Beards" of two series of loop dislocations are formed around the notches lying in the [110] direction. There are 4 figures and 2 tables.

ASSOCIATION: Institut fiziki i matematiki AN MSSR, Kishinev
(Institute of Physics and Mathematics AS MSSR, Kishinev)

SUBMITTED: February 20, 1962 (initially)
August 29, 1962 (after revision)

Card 2/2

BOYARSKAYA, Yu.S.; VAL'KOVSKAYA, M.I.

Measurement under load of the microhardness of brittle transparent materials. Zav.lab. 29 no.7:874-876 '63. (MIRA 16:8)

1. Institut fiziki i matematiki AN Moldavskoy SSR.
(Materials--Testing) (Hardness)

BOYARSKAYA, Yu.S.; VAL'KOVSKAYA, M.I.

Studying the anisotropy of the mechanical properties of NaCl single crystals by observation of the dislocation distribution along the (111) face. Fiz. tver. tela 5 no.8:2324-2331 Ag '63. (MIRA 16:9)

1. Institut fiziki i matematiki AN Moldavskoy SSR, Kishinev.
(Dislocations in crystals)

L 9217-66 EWT(l)/EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(c) LIP(c) JD/GG
ACC NR: AR6000122 SOURCE CODE: UR/0058/65/000/008/E053/E054

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B

SOURCE: Ref. zh. Fizika, Abs. 8E402

AUTHORS: Boyarskaya, Yu. S.; Zhitary, R. P.
44,55 44,55

ORG: none

TITLE: Concerning the polarity of the mechanical properties on the (111) face of single-crystal NaCl

CITED SOURCE: Izv. AN MoldSSR. Ser. fiz.-tekhn. i matem. n., no. 12, 1964, 8-14

TOPIC TAGS: sodium chloride single crystal, crystal property, crystal lattice dislocation, hardness
21 21,44,55

TRANSLATION: Impact with a diamond pyramid was produced on the (111) face of NaCl single crystals. The dislocation distribution in the region of the print was disclosed by selective etching with subsequent multiple repolishing. The dislocation rosette on the surface had no clear-cut crystallographic form (at large loads, however, three rays in the directions (110) were distinctly pronounced) but on penetrating deeper in the crystal, three rays appeared in the three (112) directions, making an angle of 120° to one another. A rosette of such form offers evidence of polarity of the mechanical properties on the (111) face. The dislocations in the rosette were in the form of semi-loops: one end of the loop was located in the center of the imprint, and the other in the ray. Semi-loops lying with both ends in the ray were also encountered. Motion of the dislocations along the rays was observed

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ACC NR: AR6000122 O

during the etching process, covering a distance 8--75 μ, and the shift in the direction from the center of the rosette was larger than in the direction towards the center. Comparison of the anisotropy of the microhardness, the form of the dislocation rosettes, and the form of the dislocations have made it possible to conclude that the polarity of the mechanical properties of NaCl on the (111) face is connected essentially with deformation over the slip planes perpendicular to (111).
A. Urusovskaya.

SUB CODE: 20

Card 2/2

BOYARSKAYA, Yu.S.; VAL'KOVSKAYA, M.I.

Determination of microhardness and the study of regularities in the recovery of indentations on organic glass. Zav.lab. 30 no.4:486-488 '64. (MIRA 17:4)

1. Institut fiziki i matematiki AN Moldavskoy SSR.

ACC NR: AT6024012 SOURCE CODE: UR/0000/65/000/000/0076/0084

AUTHOR: Val'kovskaya, M. I.; Boyarskaya, Yu. S.; Zhitaru, R. P.

ORG: none

TITLE: On the nature of the anisotropy of the hardness of alkali-halide crystals

SOURCE: AN MoldSSR. Institut prikladnoy fiziki. Teoreticheskiye i eksperimental'nyye issledovaniya fizicheskikh svoystv poluprovodnikovykh materialov i drugikh kristallov (Theoretical and experimental studies on physical properties of semiconductor materials and other crystals). Kishinev, Izd-vo Kartya Moldovenyaske, 1965, 76-84

TOPIC TAGS: alkali halide, crystal dislocation phenomenon, sodium chloride, hardness, crystal surface

ABSTRACT: The authors report investigations of the distribution of dislocations around scratches made on the face (001) of NaCl in the directions [100] and [110] for the purpose of determining the planes along which slipping develops as a result of scratches in these directions. The dislocation distribution was investigated by selective etching. The scratches were produced by a standard diamond pyramid of the PMT-3 instrument. The load on the pyramid ranged from 0.5 to 5 grams. The techniques used for the distribution of the dislocations around the scratches are described in some detail. All the methods yielded similar results. It is concluded that when the scratches are produced along the [100] direction, the slip develops essentially along the planes (011) and (0$\bar{1}$1). When the scratches are made along [110], the slip occurs

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ACC NR: AT6024012

essentially on the (110) plane. Scratches along [100] produce a dislocation distribution similar to that obtained by striking a ball against the (001) face. The difference in hardness in the two directions is explained on the basis of the relative ease with which the slip planes are formed. Orig. art. has: 9 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 25Jul65/ ORIG REF: 007/ OTH REF: 001

Card 2/2

BOYARSKAYA, Yu.S.; GRABKO, D.Z.

Effect of some factors on the hardness determined by the scratching method. Zav. lab. 31 no.8:1004-1008 '65.
(MIRA 18:9)

1. Institut prikladnoy fiziki AN Moldavskoy SSR.

L 06433-67 EWT(m)/EWP(t)/ETI LJP(c) JD/JG

ACC NR: AP6026710 SOURCE CODE: UR/0181/66/008/008/2475/2477

AUTHOR: Val'kovskaya, M. I.; Boyarskaya, Yu. S.

ORG: Institute of Applied Physics, AN MSSR, Kishinev (Institut prikladnoy fiziki AN MSSR)

TITLE: Revealing of dislocations and dislocation structure arising from the deformation of gallium phosphide single crystals

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2475-2477

TOPIC TAGS: gallium compound, phosphide, crystal dislocation, crystal deformation

ABSTRACT: The action of several etchants recommended in the literature for revealing dislocations on the (111) growth face of gallium phosphide single crystals is compared and it is shown that only etchant No. 3 (boiling solution of 27 g $FeCl_3$, 250 ml HCl and 350 ml water) reveals true dislocation etch pits. This was confirmed by observations of etch patterns formed on the (111) surface after its deformation with a diamond indenter and with scratches along definite crystallographic directions. The dislocation rosettes obtained around the indentations consisted of six rays along the $\langle 110 \rangle$ directions. The shape of these rosettes did not show any polarity of the $\langle 11\bar{2} \rangle$ directions. This feature distinguishes the crystals studied from cubic crystals with another lattice type, e. g., alkali halide crystals. In the latter, a concentrated force on the (111) face produces a three-ray dislocation rosette whose shape definite-

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ACC NR: AP6026710

ly indicates the polarity of the <11$\bar{2}$> directions. One of the possible causes of this difference is probably the fact that in gallium phosphide the glide takes place on planes of a different type than in alkali halide crystals. The distribution of dislocations around the scratches clearly reflects the polarity of the <11$\bar{2}$> directions. In conclusion, the authors thank S. L. Pyshkin and Yu. I. Maksimov for providing the gallium phosphide single crystals. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 03Jan66/ ORIG REF: 005/ OTH REF: 001

Card 2/2

ACC NR: AP7003902 SOURCE CODE: GE/0030/67/019/001/0441/0451

AUTHOR: Boyarskaya, Yu. S.; Koloskova, V. G.; Zhitaru, R. P.

ORG: Institute of Applied Physics, Academy of Sciences of the Moldavian SSR, Kishinev

TITLE: Effect of different lattice defects on the mobility of dislocations in alkali halide crystals

SOURCE: Physica status solidi, v. 19, no. 1, 1967, 441-451

TOPIC TAGS: alkali halide, lattice defect, crystal dislocation, sodium chloride, ~~crystal~~, potassium chloride, ~~crystal~~ dislocation mobility, x ray irradiation, irradiation effect

ABSTRACT: Potassium chloride and sodium chloride single-crystals were subjected to additive coloration treatment and x-irradiation. Conditions under which hardening and softening of these crystals occur were established. It was found the F-centers and colloids have no appreciable effect on dislocation mobility. It is suggested that several types of defects due to soft irradiation which are possibly connected with the capacity of this irradiation to generate vacancies in the

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ACC NR: AP7003902

crystal lattice are responsible for the hardening of irradiated NaCl crystals. Orig. art. has: 9 figures and 3 tables. [Authors' abstract] [DW]

SUB CODE: 20/SUBM DATE: 29Oct66/ORIG REF: 012/OTH REF: 014/

Card 2/2

BOYARSKAYA, Z.

Klara TSetkin; on the 100th anniversary of her birth. Rabotnitsa 35 no.7:18 Jl '57. (MLRA 10:8)
(TSetkin, Klara, 1857-1933)

BOYARSKIKH, G.K.; NIKONOV, V.F.; PROKOPENKO, V.I.; ROVNINA, L.V.; ROMANOV, F.I.; YASTREBOVA, T.A.; SVERCHKOV, G.P., nauchnyy red.; NEVEL'SHTEYN, V.I., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

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USSR/Medicine - Epidemiology Apr/May 1947
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"Mathematical Statistics in Epidemiological Investigations," A. Ya. Boyarskiy, 7 pp

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Very general discussion of the field and work that has been done, mostly by foreign sources.

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"Criticism of the English Formal Mathematical School of Epidemiology," A. Ya. Boyarskiy

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Elaborate and detailed attack on the school of Ross, Brownlee, McKendrick and other English epidemiologists. Criticisms are based mainly on the assertion that their school fails to take class differentiations within the population into account in their quant evaluations of epidemics.

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Statisticheskite metody v eksperimental'nykh meditsinskikh issledovaniyakh [ Statistical methods in experimental medical reserach ] Moskva, Mediz, 1955. 261 P. Tabes. At head of title: Akademiya Meditsinskikh nauk ssar. Institut organizatsii Zdravookhraniya I istorii meditsiny.

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Yastremskiy, Boris Sergeyevich

Matematicheskaya statistika (Mathematical statistics) Moscow, Gosstatizdat, 1956. 175 p. 10,000 copies printed.

Eds.: Boyarskiy, A. Ya. and Shchentsis, Ye. M.; Tech. Ed.: Kapralova, A. A.

PURPOSE: The book is intended as a textbook for university students in the faculty of economics. It can be used by economists wishing to learn the fundamentals of mathematical statistics.

COVERAGE: The concept of approximation by polynomials and the fundamental interpolation and extrapolation formulas are given. The smoothing of time series by the method of least squares and the method of moving averages is presented. The fundamentals of the theory of probability in connection with the theory of means are given and the significance of the theory of means in statistics is presented. The different forms of means are analyzed and their quantitative relationships established. The types of time series are considered and the

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analysis of the distribution of means given. At the end of the book correlation theory and its application in statistics is briefly presented. There are 19 book references, all Soviet. In addition to the authors of the references in the text, the names of the Soviet statisticians mentioned include: Slutskiy, Ye. Ye.; Cherevanin; Baskin; Semenov, M.; Obukhov, V. M.; Mikhaylovskiy, V. G.; Lukomskiy, Ya. I.; Zaytseva, N. V.; Kalmogorov, A. N.; Chuprov, A. A.; Shusherin, P.P.; Urlanis, B. Ts.

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